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In the Supreme Court of the United States

OCTOBER TERM, 1978

SHELL OIL COMPANY, PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY, ET AL.

CINCINNATI GAS & ELECTRIC CO., ET AL., PETITIONERS

v.

ENVIRONMENTAL PROTECTION AGENCY, ET AL.

ON PETITIONS FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT

BRIEF FOR THE FEDERAL RESPONDENTS IN OPPOSITION

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INDEX

	Page
Opinion below	2
Jurisdiction	2
Questions presented	2
Statement	2
Argument	7
Conclusion	14

CITATIONS

Cases:

Citizens to Preserve Overton Park, Inc. v. *Volpe*, 401 U.S. 402	7, 10
Cleveland Electric Illuminating Co. v. *EPA*, No. 78-84, cert. denied, October 16, 1978	5
Kennecott Copper Corp. v. *Train*, 526 F.2d 1149, cert. denied, 425 U.S. 935	11
Sierra Club v. *EPA*, 540 F.2d 1114, remanded on other grounds *sub nom. Montana Power Co.* v. *EPA*, 434 U.S. 809	11
South Terminal Corp. v. *EPA*, 504 F.2d 646	11
Texas v. *EPA*, 499 F.2d 289, cert. denied, 427 U.S. 905	11
Timken Co. v. *EPA*, No. 78-83, cert. denied, October 16, 1978	5
Train v. *Natural Resources Defense Council*, 421 U.S. 60	2

Statutes: Page

Clean Air Act, formerly 42 U.S.C. (1970 ed.) 1857 *et seq.* 2
Clean Air Amendments of 1970, Pub. L. No. 91-604, 84 Stat. 1676, 42 U.S.C. (1970 ed.) 1857 *et seq.* 2
Clean Air Act Amendments of 1977, Pub. L. No. 95-95, 91 Stat. 685, 42 U.S.C. 7401 *et seq.*:
Section 110, 42U.S.C. 7410 11
Section 110(a)(2), 42 U.S.C. 7410 (a)(2) 7
Section 110(c), 42 U.S.C. 7410(c) 3
Section 123, 42 U.S.C. 7423 13
Section 307(b)(1), 42 U.S.C. 7606 (b)(1) 4

Miscellaneous:

EPA Final Technical Support Document (August 1976) 4, 10, 13
EPA Supplemental Technical Support Document: Sulfur Dioxide Control Strategy for the State of Ohio (May 1977) 4, 8, 9, 10
40 Fed. Reg. 52410 (1975) 3
41 Fed. Reg. 36324 (1976) 4
H.R. Rep. No. 95-294, 95th Cong., 1st Sess. (1977) 13

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OPINION BELOW

The opinion of the court of appeals (78-535 Pet. App. 1a-12a; 78-536 Pet. App. 1a-12a) is reported at 578 F.2d 660.

JURISDICTION

The judgment of the court of appeals was entered on June 29, 1978. The petitions for a writ of certiorari were filed on September 27, 1978. The jurisdiction of this Court is invoked under 28 U.S.C. 1254(1).

QUESTIONS PRESENTED

1. Whether the court of appeals adequately reviewed EPA's plan for the control of air pollution from rural area sources.

2. Whether a remand is required to permit EPA to give additional consideration to petitioner Shell's claim that allowable sulfur dioxide emissions should be expressed in pounds-per-hour rather than in the terms adopted by EPA (No. 78-535).

STATEMENT

In the Clean Air Amendments of 1970, Pub. L. No. 91-604, 84 Stat. 1676, 42 U.S.C. (1970 ed.) 1857 *et seq.*,[1] Congress directed each state to establish a plan for the control of air pollution by 1972. See *Train* v. *Natural Resources Defense Council*, 421 U.S. 60 (1975). The State of Ohio, however, failed to develop

[1] The Clean Air Act (formerly 42 U.S.C. (1970 ed.) 1857 *et seq.*) is now 42 U.S.C. 7401 *et seq.* See Clean Air Act Amendments of 1977, Pub. L. No. 95-95, 91 Stat. 685.

a plan for the control of sulfur dioxide pollution and, accordingly, as required by Section 110(c), 42 U.S.C. 7410(c), EPA published its proposed plan on November 10, 1975 (40 Fed. Reg. 52410 (1975)). At the same time it released for public review and comment a two-volume technical support document of approximately 900 pages, setting forth the scientific basis and rationale for the proposed plan. EPA then held five days of public hearings in four cities in Ohio, and solicited written comments on the proposed plan until January 23, 1976. In all, more than 230 comments and associated exhibits were submitted, resulting in an administrative record of several thousand pages.

As a result of these comments and others presented at the public hearings, EPA made certain modifications in the proposed plan. Among these was a change in the method of determining emission limitations for pollution sources located in rural areas with hilly terrain. EPA made an adjustment to its Second Maximum 24-Hour Dispersion Model ("MAX-24"), the mathematical computer model used to simulate pollution from isolated point sources in rural areas. The result was the Second Maximum 24-Hour Dispersion Model with Terrain Adjustments ("MAXT-24"), which includes an adjustment designed to compensate for an overprediction of sulfur dioxide emissions that had been revealed in validation studies comparing the predictions of the original model against actual air quality monitor data (Pet. App. 8a-10a).[2] On August

[2] "Pet. App." refers to the appendix to the petition in No. 78-535.

27, 1976, the Administrator promulgated the control plan for sulfur dioxide emissions in Ohio (41 Fed. Reg. 36324 (1976)) and released a second technical support document of approximately 1,260 pages, which evaluated the comments and explained the changes that had been made in the plan in response to comments (*EPA Final Technical Support Document* (August 1976)).

Petitioners and others sought judicial review of the plan in the court of appeals under Section 307(b)(1), 42 U.S.C. 7606(b)(1). On November 14, 1976, after a hearing and upon consideration of motions to stay enforcement of the plan, the court sua sponte ordered that the administrative record be reopened and that those seeking review be allowed 60 days to comment on the plan as promulgated. See Pet. App. 23a-25a.

Each of the petitioners submitted written comments, and on May 27, 1977, EPA completed its consideration of the comments and filed with the court of appeals a memorandum accompanied by a third technical support document, *EPA Supplemental Technical Support Document: Sulfur Dioxide Control Strategy for the State of Ohio* (May 1977). Thirty-two companies, including petitioners, again sought judicial review.

The court of appeals issued two decisions. Its first decision, issued on February 13, 1978, concerned "general issues" applicable to all the companies (Pet. App. 18a). The court of appeals held that the EPA hearings on the control plan were procedurally adequate, and it approved EPA's use of the Real-Time

Air-Quality-Simulation Model ("RAM") to set emissions standards for pollution sources in urban areas. Use of the model was, the court held, a "rational choice" made "well within the [agency's] discretion" (Pet. App. 44a).

The court of appeals noted:

> Our standard of review of the actions of United States EPA is whether or not the action of the agency is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." Clean Air Act Amendments of 1977, Pub. L. No. 95-95, Sec. 305(a), 91 Stat. 775 * * *. Thus, we are required to affirm if there is a rational basis for the agency action and we are not "empowered to substitute [our] judgment for that of the agency." *Citizens to Preserve Overton Park* v. *Volpe*, 401 U.S. 402, 416 (1971).

Pet. App. 37a.[3]

In its second decision, issued on June 29, 1978, the court of appeals reviewed the methods EPA used to set emission limitations for pollution sources in rural areas (Pet. App. 1a-12a). The court stated that the MAXT-24 model "strongly resembles" the RAM model in certain respects, that the court's comments on the RAM model in the first decision "are largely applicable to EPA's adoption of MAXT-24," and that, with one exception, "EPA's adoption and use of the MAXT-24 model is not arbitrary or capricious and, like the

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[3] On October 16, 1978, this Court denied the petitions for certiorari to review the February 13, 1978, decision. *Timken Co.* v. *EPA*, No. 78-83, and *Cleveland Electric Illuminating Co.* v. *EPA*, No. 78-84.

use of the RAM model, must be affirmed by this court" (Pet. App. 3a-4a).

The court noted that none of the petitions before it "seriously disputes the general validity of the MAXT-24 model" (Pet. App. 4a). Rather, petitioners' complaints focused on applications of the model to rural pollution sources under two specific conditions (*ibid.*). The court of appeals first reviewed the method EPA followed for determining pollution dispersion in unstable weather conditions (Class A Conditions) and concluded that EPA had not developed a sufficient record to support its method (Pet. App. 4a-8a). The court remanded the issue to EPA for further consideration (Pet. App. 8a).

The court next reviewed EPA's adjustment to the model for determining emission limitations for sources situated in hilly terrain and affirmed EPA's decision (Pet. App. 8a-11a). As noted earlier (page 3, *supra*), EPA had adjusted the basic rural MAX-24 model in response to comments on its originally proposed emission control plan. During the additional comment period ordered by the court of appeals, petitioners objected to EPA's terrain adjustment method and proposed a different one. While the court of appeals found that "the record does not establish conclusively" that the EPA method would satisfactorily solve the problem posed, the court found that, on the record before it, the "present terrain adjustment" in the model was neither arbitrary nor capricious (Pet. App. 11a). Finally, the court of appeals reviewed and affirmed the agency's decision to express emission

limitations in pounds of sulfur dioxide per MBTU (Million British Thermal Units) of heat input rather than, as Shell had suggested, in pounds emitted per hour. The court found this to be a policy decision within the agency's administrative discretion and consistent with the requirement of the Act that the plan "insure attainment and maintenance" of the national ambient air quality standards. Section 110(a)(2), 42 U.S.C. 7410(a)(2) (Pet. App. 12a).

ARGUMENT

The decision of the court of appeals is correct, does not conflict with any decision of this Court or other courts of appeals, and does not warrant review.

1. Petitioners contend that EPA and the court of appeals did not adequately consider certain objections to the use of the MAXT-24 model to set sulfur dioxide emission limitations for plants in rural areas. The record shows otherwise. EPA extensively explained and justified its use of the basic MAX-24 model and its modification, the MAXT-24, and the court of appeals, considering all of petitioners' objections, correctly concluded that, with the exception of the model's application to plume dispersion in unstable weather conditions, "EPA's adoption and use of the MAXT-24 model is not arbitrary or capricious" (Pet. App. 4a). See *Citizens to Preserve Overton Park, Inc.* v. *Volpe*, 401 U.S. 402, 416 (1971).

a. Petitioners Shell (78-535 Pet. 6-11) and the utilities (78-536 Pet. 5-13) specifically contend that the court of appeals did not adequately consider

EPA's adjustment of its model to account for plume dispersion in hilly terrain. Shell (78-535 Pet. 7-9) generally faults the court for failing to agree with Shell that EPA's response to Shell's objections to the adjustment was "nonresponsive" and that the adjustment itself was "unsupported." The utilities attack the court for failing to remand the terrain adjustment issue in light of an alleged concession by EPA that the "underlying rationale" for the adjustment was "erroneous" (78-536 Pet. 12). In fact, EPA articulated a rationale for its terrain adjustment and did not thereafter concede that the rationale was erroneous. In response to comments on the original MAX-24 model, EPA determined that the model had tended to overstate observed ground-level pollution concentrations for sources situated in hilly terrain. EPA then made a mathematical adjustment to the model to bring it into conformity with the data used in the original validation studies of the MAX-24 model. This adjustment was explained by EPA (*Supplemental Technical Support Document, supra*, at 55). The concession referred to by the petitioner utilities was not a concession that the rationale for the adjustment was erroneous, *i.e.*, that the adjustment did not bring the model into conformity with the data used in the original validation studies. It was simply a correction of a statement in the technical support document that had implied that additional validation studies had been done of the model after the terrain adjustment was made (see Pet. App. 11a). Petitioners' own suggestion for a different terrain adjustment

was considered by EPA and rejected because it was supported by no data indicating that it would be a superior method of adjusting for hilly terrain. *Supplemental Technical Support Document*, *supra*, at 55. The court of appeals correctly concluded (Pet. App. 11a) that EPA was not obliged to forego using its own solution of the terrain problem in the absence of evidence that another solution would prove to be more reliable.

b. In No. 78-535, petitioner Shell states (Pet. 5, 12) that certain monitor data measured at particular points in the vicinity of its chemical manufacturing plant in rural southeastern Ohio show that there is no need for reducing the sulfur dioxide emissions from the plant. Shell contends (Pet. 5-6, 10, 12) that EPA's MAXT-24 model could be altered, by expanding the form of the Gaussian plume equation incorporated in the model, to predict emissions in accordance with those monitor data, and that both EPA and the court of appeals failed to give adequate consideration to this objection to the MAXT-24 model. This contention is without merit.

The basic rural model was tested in validation studies using data from several plants. Both it and the terrain-adjusted model were, like all such models, intended to serve as a consistent and efficient means of setting emissions standards for a large number of facilities. Shell's argument for revising the Gaussian plume equation used in the model is essentially an argument that its plant should have its own model, drawn up in accordance with monitor data for the

plant that may or may not be reliable.[4] In response to objections made during the additional comment period ordered by the court of appeals, EPA explained at length the reasons why monitor data alone cannot be relied on to determine whether or not pollution sources must reduce emissions to insure attainment and maintenance of the national ambient air quality standards. *Supplemental Technical Support Document, supra,* at 4-16. The court of appeals, therefore, did not err in finding "no merit to objections based on failure to calibrate the MAXT-24 model (or failure to reject its results because of claims of overprediction as demonstrated by some monitor readings)" (Pet. App. 11a-12a).

c. In sum, the court of appeals considered petitioners' technical objections to the MAXT-24 model and effectively determined that EPA's position on those matters did not constitute a "clear error of judgment." *Citizens to Preserve Overton Park, Inc.* v. *Volpe, supra,* 401 U.S. at 416.[5] Petitioners' con-

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[4] There were, in fact, serious problems with the monitor data on which Shell relied to support its view that the model should be changed. Shell's own monitor data came from a short-lived (June-August 1976) program with continual changes of the sampling site (Appendix to EPA's brief in the court of appeals, Vol. 4, at 284), and the state monitor data were of only slight value because the closest monitor to the Shell plant was nearly 15 kilometers away (*Final Technical Support Document, supra,* Vol. II, Appendix G, at G-10).

[5] Petitioners' contention (78-535 Pet. 11; 78-536 Pet. 9, 12) that the court of appeals' review of the issues presented to it was deficient under the *Overton Park* standard is therefore

tentions that the court did not adequately review EPA's response to their objections to the MAXT-24 model finally come down to a disagreement with the court of appeals' conclusion in its February 13, 1978 decision (Pet. App. 42a-44a), incorporated by reference in the decision challenged here (Pet. App. 4a, 12a), that EPA cannot be held to have acted arbitrarily and capriciously simply because it employed a model that may fall short of "predictive perfection" (Pet. App. 43a). We submit that the court of appeals' conclusion is reasonable, and that petitioners' arguments regarding particular criticisms of the MAXT-24 model do not warrant further review by this Court.[6]

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incorrect. Nor do any of the other cases relied on by petitioners (78-535 Pet. 11-12; 78-536 Pet. 9-11) conflict with the standard of review employed here by the court of appeals.

[6] Section 110 of the Act, 42 U.S.C. 7410, requires that control plans be promulgated to "insure that the national standards are attained." Accordingly, the plans promulgated throughout the country to meet the 1972 deadline of the Act were developed with whatever analytical tools were available. Moreover, the courts of appeals have consistently recognized that EPA must resort to less than perfect tools to meet congressional deadlines. In *Texas* v. *EPA*, 499 F.2d 289, 301 (1974), cert. denied, 427 U.S. 905 (1976), the Fifth Circuit affirmed EPA's use of an admittedly "unreliable" model to set oxidant pollution emission limitations, 499 F.2d at 301. Similarly, the First and Ninth Circuits have upheld the use of imperfect models. *South Terminal Corp.* v. *EPA*, 504 F.2d 646, 662-663 (1st Cir. 1974); *Kennecott Copper Corp.* v. *Train*, 526 F.2d 1149, 1152 n.16 (9th Cir. 1975), cert. denied, 425 U.S. 935 (1976). In *Sierra Club* v. *EPA*, 540 F.2d 1114, 1136 (D.C. Cir. 1976), remanded on other grounds *sub nom. Montana Power Co.* v. *EPA*, 434 U.S. 809 (1977), the court

2. In No. 78-535, Shell contends (Pet. 8-10) that the court did not properly review EPA's decision to express emission limitations in terms of pounds of sulfur dioxide per MBTU of heat input rather than pounds per hour, as Shell had proposed. Shell concludes that a remand to EPA on this issue is required. The court, however, reviewed Shell's proposal and found that either it would yield less accurate results or it would pose an "impossible" enforcement task (Pet. App. 12a).

This is not an unreasonable conclusion. EPA had expressed concern that, if Shell's proposed measurement was used, Shell would be able to burn poor quality fuel (fuel with high sulfur content) at low combustion, or operating, rates, and thus meet emissions standards while violating ambient air standards. This might occur because at low operating rates, ground level concentrations of sulfur dioxide would increase as a result of the low plume rise associated with those operating rates. *Supplemental Technical Support Document, supra,* at 92-94. To avoid this impact on air quality, EPA would be required to adjust its model to determine effects at the different operating capacities, and to modify emissions limitations accordingly. *Ibid.* Shell's response (Pet. 7) was that it had installed heat exchangers in its stacks to "keep plume dispersion

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upheld the use of computer dispersion modeling as a rational method for evaluating proposed new pollution sources and stated that "lack of precision alone" would not defeat the approach.

capabilities equalized at all operating rates." This representation concerning Shell's equipment, however, provides no assurance that its emissions measurement proposal would constitute an easily enforceable, consistent system for specifying emissions limitations, especially at other plants subject to the control plan. EPA's concern for enforceability was apparent in the way it designed and justified most aspects of the control plan (see, *e.g.*, *Final Technical Support Document, supra*, Vol. I, at 34-41), and the court properly found this consideration an adequate ground for upholding EPA's decision not to replace its preferred emissions limitation measurement with that proposed by Shell.[7]

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[7] In any event, even assuming that heat exchangers like those used by Shell would be a generally feasible means of protecting against violation of ambient air standards, they constitute dispersion techniques, which under a provision in the Clean Air Act Amendments of 1977, enacted after EPA issued its *Supplemental Technical Support Document*, cannot be permitted to affect emissions limitations. Section 123, 91 Stat. 721, 42 U.S.C. 7423, provides that "the degree of emission limitation required for control of any air pollutant" under a control plan "shall not be affected in any manner by (1) so much of the stack height of any source as exceeds good engineering practice * * *, or (2) *any other dispersion technique*" (emphasis added). The House Report on these amendments indicates that one reason for this stricture was to maintain an "incentive for development of systems potentially capable of clean burning of coal—such as fluidized bed combustion." H.R. Rep. No. 95-294, 95th Cong., 1st Sess. 88 (1977). The report also speaks of the desirability of using more low-sulfur coal. *Id.* at 89.

CONCLUSION

The petition for a writ of certiorari should be denied.

Respectfully submitted.

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